

# H<sub>2</sub>onsite

Decentralized Hydrogen Generation Systems

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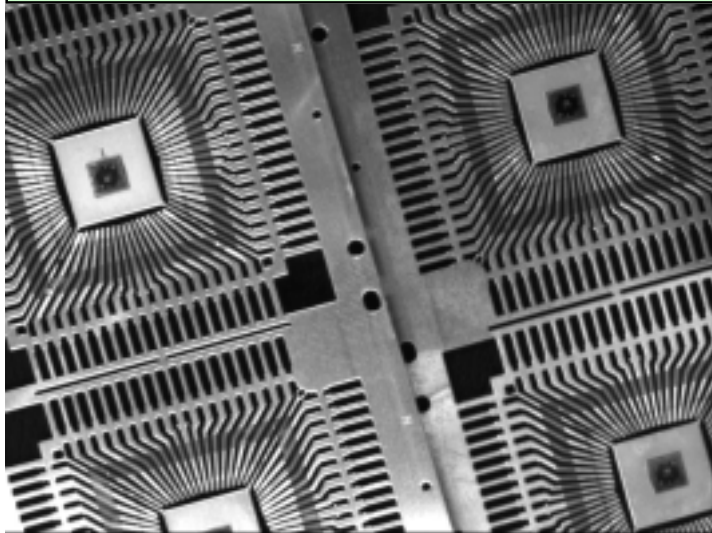
# H<sub>2</sub>onsite Business Overview

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- Innovative hydrogen generation technology developed by Lawrence Livermore Lab
  - high purity
  - low cost
  - patented
- Replace electrolysis and truck delivered hydrogen
  - Small to medium industrial users
  - Focus on electronics short term
  - Fuel cells long term

# Worldwide Markets

## Industrial H<sub>2</sub>



- **\$1.4B delivered by truck in 2003**
- **8% annual growth**
- **Electronics is growing faster**

## Vehicles



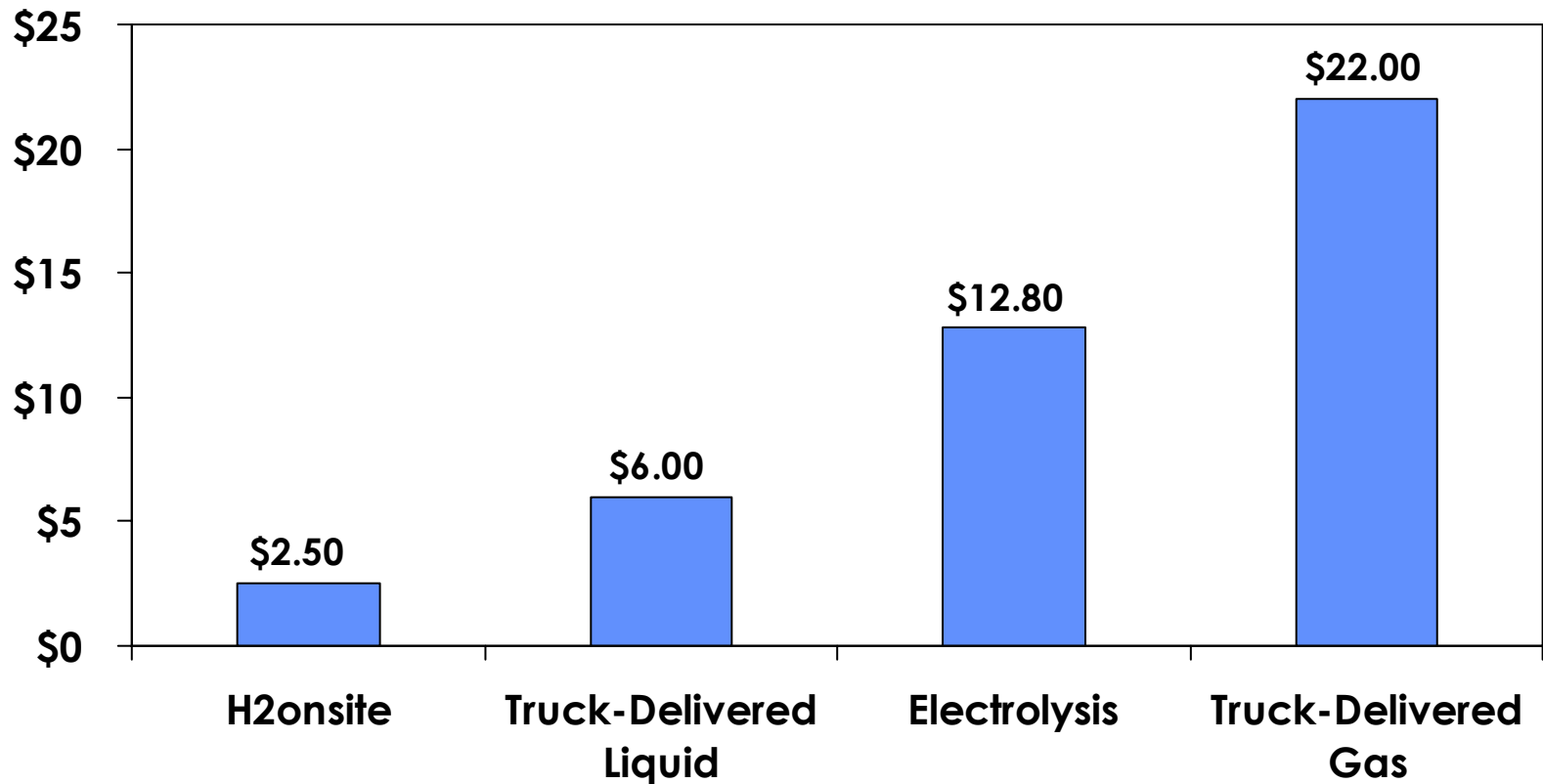
- **\$4B in 2010**
- **\$100B in 2020**
- **30 European demonstration projects 2003-2004**

Sources: SRI, DOE, Southern California Air Quality Management District, Freedonia

# Cost of Existing Solutions

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End-User Cost per Kilogram of Hydrogen



# Distributed Reforming is the Competition

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## H<sub>2</sub>onsite

- Higher purity
- Output at 350 psi vs low pressure
- Lower capital costs and scales easily
- Similar/lower operating costs

## Reformer Competitors

H2Gen

Mesofuel

Hyradix

Praxair

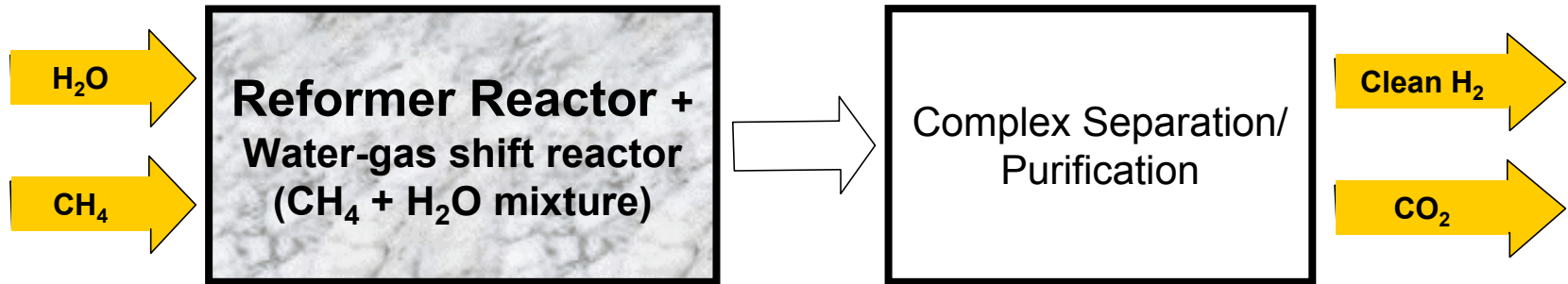
Idatech

Ztek

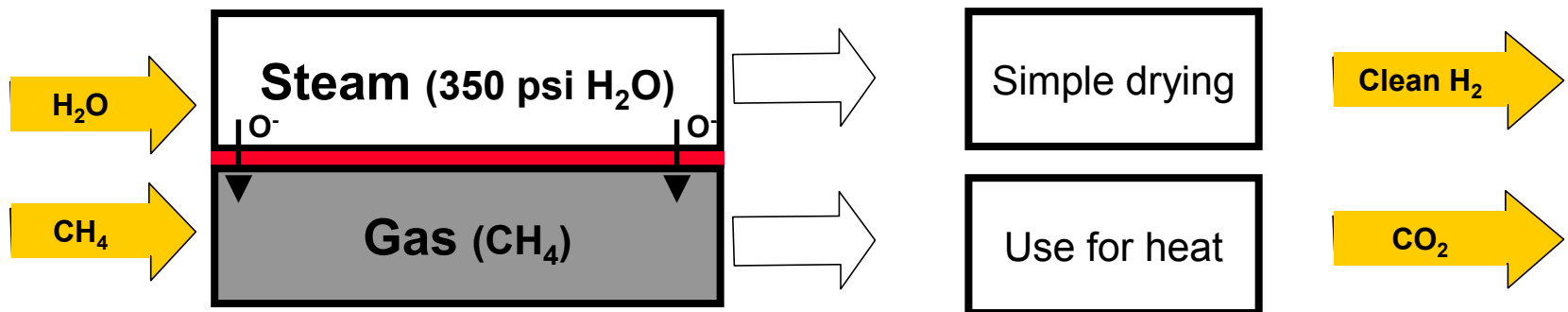
HydrogenSource

# Technology Comparison

## Reformers



## H<sub>2</sub>onsite



- Breakthrough technology changes the economics of the hydrogen business
  - Have working unit
  - Proprietary technology provides barrier to entry
- Large existing market with huge upside
- The management team is complete and beta customers have been identified